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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
| 10/505,447 | 01/14/2005 | Minoru Oda | 258187US0PCT | 3216 |
| 22850 | 7590 | 03/16/2009 | EXAMINER | |
| OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314 | | | KRUER, KEVIN R | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 1794 | |
| | | | NOTIFICATION DATE | DELIVERY MODE |
| | | | 03/16/2009 | ELECTRONIC |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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| | | | |
|------------------------------|--------------------------------------|-----------------------------------|--|
| Office Action Summary | Application No. 10/505,447 | Applicant(s) ODA ET AL. | |
| | Examiner KEVIN R. KRUER | Art Unit 1794 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 January 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 5 and 8-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 5 and 8-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 9/2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on January 16, 2009 has been entered.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 5 and 8-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Auclair (US 5,932,655) in view of Adams et al (US 4,927,675) .

Auclair teaches a thermoplastic molding composition which feature improved impact and reduced opacity. The composition comprises ©35-75wt% of a copolymer matrix, (a) 1-29wt% of a grafted rubber with a weight average particle size of 0.05-.30um (abstract). The matrix (c) is herein relied upon to read on the claimed continuous phase and comprises styrene and methyl methacrylate in a ratio of 80:20 –65:35 (col 5, lines 48+). The grafted particle (a) comprises a grafted phase of styrene and methyl methacrylate (col 2, lines 20+) in relative amounts of 80:20-65:35. The core shell phase

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and grafted phase and grafted phase are included in amounts of 0.3-1 (col 2, lines 20+). The core-shell phase comprises 5-30wt% of a vinyl aromatic polymer (col 2, line 31) and 70-95wt% of a diene (col 2, lines 39) such as butadiene. Said core/shell is understood to read on said claimed "elastomer" and the particle is understood to read on the claimed dispersed stage.

Said refractive index difference between the continuous phase and the dispersed phase is not explicitly taught to be not more than 0.05. However, Auclair teaches opacity should be reduced. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to minimize the refractive index difference between the matrix and the particles in order to minimize opacity.

Auclair teaches the core layer composition but does not teach a surface film should be applied to said core layer. However, Adams teaches improved composite materials wherein the core comprises a thermoplastic resin and an organic constituent dispersed therein (abstract). The thermoplastic herein is understood to be equivalent to the styrene copolymer. The "organic constituent" may be an impact modifier (col 4, lines 42+) which is understood to be equivalent to the elastomeric styrene polymer of Auclair. Adams teaches surface films consisting of the thermoplastic material should be applied to said composite materials to prevent migration of the organic constituents dispersed in the core (col 1, lines 6+). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply surface films consisting of the copolymer matrix to the composite material taught in Auclair in order to prevent migration of the additive to the surface.

With respect to claims 5 and 6, said claim does not specify the substrate comprises a total of 100 parts by weight. Thus, the examiner takes the position that the composition taught in Auclair still reads on said claimed relative amounts of continuous phase and dispersed phase.

With regards to the claimed thickness limitations, the examiner takes the position that it would have been obvious to one of ordinary skill in the art at the time the invention was made to vary the thickness of the laminate according to the desired end use. Furthermore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to vary the relative thickness of the protective layer depending upon the desired migration resistance.

With respect to claim 8, the examiner takes the position said limitation is inherently met since the surface layer and the substrate layer comprise the same composition.

With respect to claims 10-14, the examiner takes the position that the preamble limitations do not inherently introduce structure to the claim thus distinguishing the claimed invention from the invention taught in the prior art.

With regards to claim 15, the method of making a product does not patentably distinguish a claimed product from the prior art unless it can be shown that the method of making the product inherently results in a materially different product. No such showing has been made.

With regards to claim 17, it would have been obvious to the skilled artisan to select the weight of the blocks in order to optimize particle size and hardness.

Response to Arguments

Applicant's arguments filed January 16, 2009 have been fully considered but they are moot in view of the new grounds of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KEVIN R. KRUER whose telephone number is (571)272-1510. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye can be reached at 571-272-3186. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Kevin R. Krueer/
Patent Examiner-Art Unit 1794

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